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Sipia rosenbergi (Formicariidae) is a synonym of *Myrmeciza* [*laemosticta*] *nigricauda*, with comments on the validity of the genus *Sipia*

by Mark B. Robbins & Robert S. Ridgely

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Abstract.—*Sipia rosenbergi* is a synonym of *Myrmeciza* [*laemosticta*] *nigricauda*. We recommend, based on vocalizations, morphology and behaviour, that both *Sipia nigricauda* and *Sipia berlepschi* be transferred to *Myrmeciza*. We believe that *M. nigricauda* and *M. laemosticta* are sister taxa, and that *berlepschi* is closely related to them. In South America, *M. laemosticta* ranges only from northern Colombia east to extreme western Venezuela; it does not occur along the Pacific coast of Colombia and Ecuador. The races *bolivari* and *venezuelae* of *M. laemosticta* do not merit recognition, and should be synonymized with *M. laemosticta palliata*.

In July–August 1987, we and others from the Philadelphia Academy of Natural Sciences (ANSP) staff surveyed the avifauna at El Placer along the western base of the Andes, at c. 670 m in elevation, in western Esmeraldas in extreme northwestern Ecuador. While in the field we were puzzled as to why we could find only *Sipia rosenbergi*, and never *Myrmeciza laemosticta*, as both had been reported previously from this area (Salvin & Godman 1892, Chapman 1926). Upon our return from the field, we realized that the ANSP collection did not have any material of *Myrmeciza laemosticta nigricauda* (the race endemic to Pacific south-western Colombia and northwestern Ecuador; Chapman 1926), even though we have good representative collections from the lowlands of this area. The taxon *nigricauda* was described from a female specimen collected at Intac (= Intag), Imbabura, Ecuador, in the extreme north-western corner of the country (Salvin & Godman 1892). Further puzzled by the fact that all other races of *laemosticta* have rufous brown and not blackish tails, we compared our series of female *Sipia rosenbergi* to Salvin

TABLE 1

Sample size, means and standard deviations of selected measurements (mm) of *Myrmeciza laemosticta*, *M. nigricauda* and *M. berlepschi*. Measurements were not taken of specimens in the Colección Ornitológica Phelps. Sexes, and subspecies of *laemosticta* are pooled

	<i>M. laemosticta</i> (n = 49)	<i>M. nigricauda</i> (n = 18)	<i>M. berlepschi</i> (n = 14)
Wing length (chord)	63.8 (2.6)	63.3 (1.8)	64.7 (1.7)
Tail	44.9 (2.1)	46.7 (1.8)	43.1 (2.2)
Tarsus	25.9 (0.9)	27.7 (0.6)	25.7 (0.6)
Culmen	20.1 (0.7)	19.8 (0.9)	20.7 (1.1)

and Godman's original description of *nigricauda*. Although the original description lacks detail, it indicated that female *nigricauda* and female *rosenbergi* were extremely similar, if not identical.

We then examined two of the three specimens (AMNH 108049, 117861) of *nigricauda* that influenced Chapman's placement of *nigricauda* as a race of *laemosticta*. These two specimens were identical to the ANSP series of female *Sipia rosenbergi*. We then examined virtually all material in American museums of these taxa from Colombia and Ecuador.

In order to confirm our suspicion that *Myrmeciza laemosticta nigricauda* and *Sipia rosenbergi* represented the same taxon, we requested that Niels Krabbe and Nigel Collar compare the types of *nigricauda* and nominate *laemosticta* from Costa Rica, both housed at the British Museum (Natural History), Tring, with a male and female of *rosenbergi* collected recently in Ecuador (Zoologisk Mus., Denmark, uncatalogued; ANSP 180339, respectively). Photographs taken by Collar clearly show that on plumage characteristics the type of *nigricauda* is indistinguishable from the female *rosenbergi*. Measurements taken by Krabbe of wing, tail, tarsus and bill could also not distinguish these taxa (see Table 1). We quote Krabbe (*in litt.*) on their comparison: "... the female *rosenbergi* is a fine match of the type of *nigricauda*, and there is no doubt that they are one and the same form." Therefore *Sipia rosenbergi* and *Myrmeciza nigricauda* are the same taxon.

Female *nigricauda* do differ from female *laemosticta* in several subtle plumage characters. The taxon *nigricauda* has less extensive white markings on the throat (in width and in extension down the throat) than *laemosticta*, the tail is blackish, and the rufous brown of the back, flanks and crissum is less intense than in *laemosticta*.

Males of these species are very different, as different, for example, as male *Myrmeciza laemosticta* is from *M. exsul*. Had the holotypes been males, there would never have been any confusion. Male *laemosticta* have chestnut flanks, crissum and tail, whereas these regions are uniform slate-grey in male *nigricauda*. Furthermore, male *laemosticta* possess a well-defined black throat, unlike *nigricauda* which has a very indistinct blackish throat that blends into the dark grey upper chest. We have not examined a single male specimen that was labelled as *M. laemosticta nigricauda*, because, not surprisingly, all the males were identified as *Sipia rosenbergi*!

Because the name *nigricauda* (Salvin & Godman 1892) has priority over *Sipia rosenbergi* (originally described as *Cercomacra rosenbergi* by Hartert in 1898), the valid species name becomes *nigricauda*. With the exclusion of *nigricauda* from *M. laemosticta*, the distribution of *Myrmeciza laemosticta* no longer includes the Pacific lowlands of Colombia and northwestern Ecuador (Chapman 1917, Peters 1951, Hilty & Brown 1986). This area is inhabited only by *nigricauda*. Moreover, the range of *nigricauda* in Colombia has been given as only the Río San Juan, Chocó, southward (Hilty & Brown 1986). Specimens of *nigricauda* in the AMNH (443294) and ANSP (147226) collections document that this species occurs at least as far north as the southern Baudó Mountains, Chocó, Colombia (5°40'N, 77°16'W), and our recently collected material (ANSP 177593–5; Robbins & Ridgely 1990) establishes that this species also occurs as far south as the Prov. El Oro, Ecuador. *Nigricauda* may range as far north as the Río Imamadó, Antioquia, Colombia (7°56'N, 76°37'W; see Fig. 1 for approximate location), as Haffer (1975) took a male there that he ascribed to *M. laemosticta nigricauda*. Unfortunately, we have been unable to confirm whether this is indeed *nigricauda*, as the specimen apparently is deposited in Colombia (J. Haffer, *in litt.*). On the other hand, three female AMNH specimens (133503, 133504, 133506) that were taken at Puerto Valdivia (7°18'N, 75°23'W) and were originally identified as *M. laemosticta nigricauda*, are in fact *M. laemosticta palliata* (the latter clearly being a race of *M. laemosticta*; see discussion below). Figure 1 depicts the range of *laemosticta* and *nigricauda*, based on the above clarification and re-examination of specimen data.

Validity of the genus *Sipia*

Although the above clarifies the appropriate treatment of *nigricauda*, it does not resolve the relationship of this species and *berlepschi* (the type species of the genus *Sipia*), both of which are currently placed in the genus *Sipia*. *Sipia berlepschi* is another species endemic to the Pacific lowlands of western Colombia and northwestern Ecuador. There has been considerable confusion on the generic placement of these taxa. Hartert (1898) originally placed the males of *nigricauda* and *berlepschi* in the genus *Cercomacra*. The female of *berlepschi* was originally described as *Thamnophilus cachabiensis*. Hartert (1902) was the first to recognize that *Thamnophilus cachabiensis* is the female of *berlepschi*.

Hellmayr (*in* Cory & Hellmayr 1924) erected the genus *Sipia* for the species *berlepschi* and *rosenbergi* (= *nigricauda*). He believed that *Sipia* was most closely allied with *Cercomacra*. He distinguished *Sipia* from *Cercomacra* by its shorter and graduated tail, narrower rectrices, and longer and larger tarsus. Since then no one seems to have questioned their generic placement until Hilty & Brown (1986), who commented that *Sipia* might better be included in *Myrmeciza*.

We agree with Hilty & Brown's suggestion, as all of Hellmayr's diagnostic characters for *Sipia*, including the black male plumage of *berlepschi*, are shared by one or more species in the genus *Myrmeciza*. Furthermore, vocally *berlepschi* and *nigricauda* are very similar to species in the genus *Myrmeciza*, e.g. *M. laemosticta* and *M. exsul* (Fig. 2); their

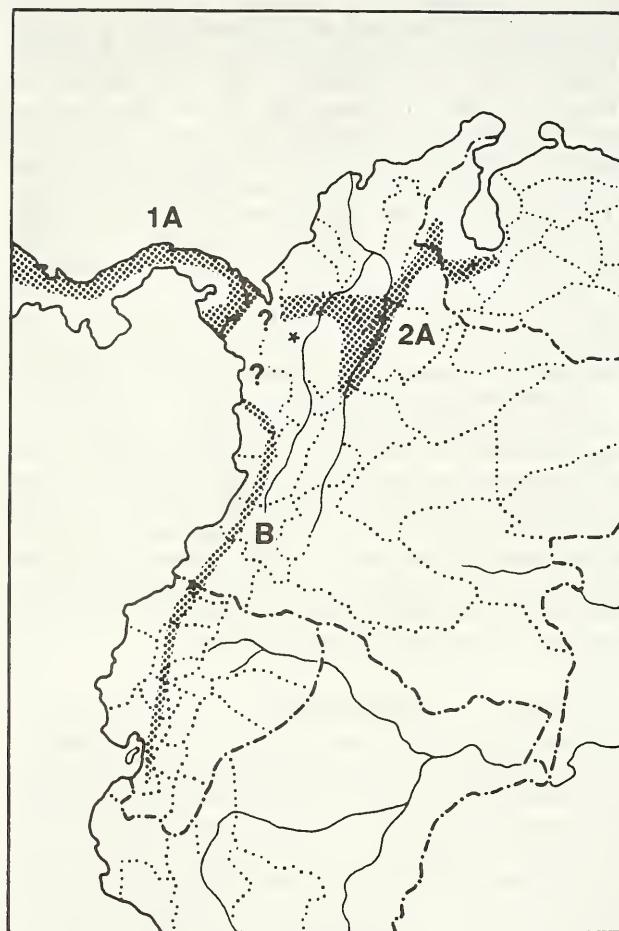


Figure 1. Northwestern South America depicting the distributions of *Myrmeciza laemosticta* (1A, nominate; 2A, *palliata*) and *Myrmeciza nigricauda* (B). It is unknown whether these taxa come into contact in extreme northwestern Colombia, as denoted by the lower question mark. An asterisk (*) indicates a specimen locality, where the species' identity is unknown (see text).

voices (call notes and song) bear no resemblance to any *Cercomacra*. We suspect that Hellmayr knew nothing of the voice of any of these birds when he erected *Sipia* and placed it next to *Cercomacra*. We consider voice to be a much more informative character with regard to defining formicariid generic relationships than some of the rather plastic plumage characters used by Hellmayr.

Figure 2 depicts the close similarities in structure, duration, intensity, and number of notes (7–8 per song) in *nigricauda*, *laemosticta* and *berlepschi*. The frequency of each note in the songs of all three species rises and falls sharply. The taxon *nigricauda* shows less of a frequency change within each note. There are overall differences in frequencies among these taxa's songs: 4.7–5.8 kHz in *nigricauda*, c. 3.0–4.5 kHz in *laemosticta*, and c. 2.0–3.5 kHz in *berlepschi* (Fig. 2). More variation in the pitch of each

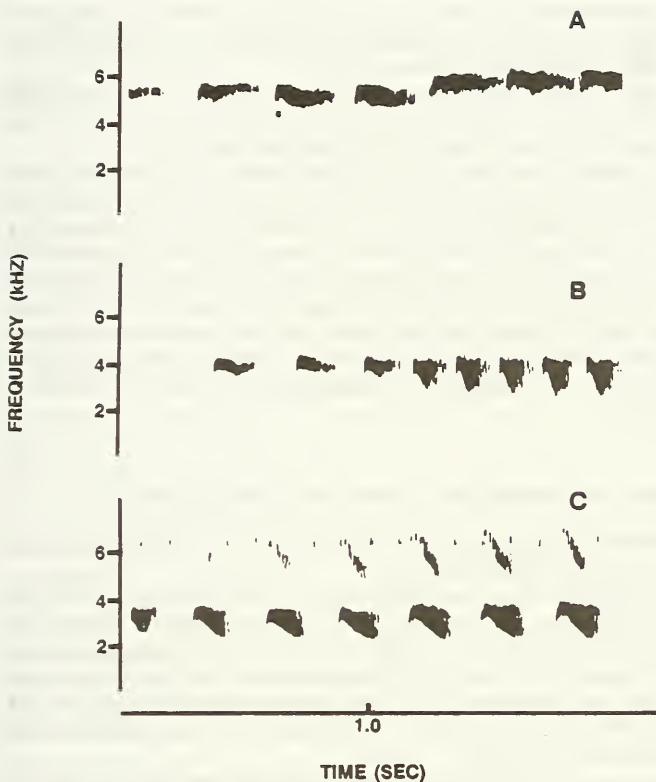


Figure 2. Song spectrograms of A, *Myrmeciza nigricauda*, under natural conditions, July 1987, Esmeraldas, Ecuador (LNS 46620); B, *Myrmeciza laemosticta*, under natural conditions, March 1986, Darién, Panama (Ridgely); C, *Myrmeciza berlepschi*, after playback, January 1983, Valle, Colombia (Ridgely).

species' song exists than is presented in Figure 2, as the frequency can depend on the motivational state of the bird (natural song vs. playback). For example in *nigricauda*, for which we have the most vocal material, the onset of each note can range from c. 4.0 to 5.0 kHz.

The taxa *nigricauda* and *berlepschi* are also quite similar to *M. laemosticta* and *M. exsul* in plumage morphology, behaviour and habitat requirements. The plumages of female *nigricauda* and *M. laemosticta* are extremely similar; indeed, as we described above, the difficulties that museum and field workers have had over the past century in distinguishing them attest to their closeness. If *berlepschi*'s generic placement were based solely on plumage characteristics, its inclusion in *Myrmeciza* might be considered more problematic. Like some of the larger *Myrmeciza* species (e.g. *immaculata*, *fortis*, *melanocephs*), male *berlepschi* is jet black. All black-plumaged *Myrmeciza* species other than *berlepschi* possess bare orbital areas; nevertheless, within the smaller members of this genus the presence or absence of this latter feature is quite variable. For example, *laemosticta*, *nigricauda* and *berlepschi* all lack the bare orbital area, whereas it is pronounced in *M. exsul*, a species that we consider to be more closely related to this species than to any other assemblage in *Myrmeciza*. The

female of *berlepschi* is also blackish except for distinct white markings to the feather edges on the throat and breast, not unlike those restricted to the throat of female *nigricauda* and *laemosticta*.

All of these species inhabit the forest understory, where they typically forage in pairs for insects in dense second growth. They seem to be particularly common in shady forest ravines in the foothills.

Given that *berlepschi* has the most differentiated plumage, has dark brown irides (both sexes of *laemosticta* and *nigricauda* have red irides), and is sympatric with *nigricauda*, we hypothesize that its speciation pre-dated the divergence of *nigricauda* and *laemosticta*. We suspect that *berlepschi* was isolated in the Chocó from proto-*nigricauda*/*laemosticta*. Subsequently, *nigricauda* may have also become isolated in a forest refugium in the Chocó during the Quaternary period, as apparently were other endemic taxa that have close relatives in Central America and/or northern Colombia, e.g. *Pteroglossus torquatus sanguineus* and *Ramphastos brevis* (Haffer 1974).

Revision of *Myrmeciza laemosticta* subspecies

In our review, we accumulated a total of 50 specimens of *palliata*, *bolivari* and the nominate race of *laemosticta*.

Todd (1917) described the race *palliata* from Santander, Colombia. The locality, La Palmita, is actually in the department of Cesar, as pointed out by Paynter & Traylor (1981). Peters (1951) gave the range of *palliata* as "Darién; Colombia in departments of Antioquia and Santander". However, Wetmore (1972) recognized that only the Central American nominate race occurred in Panama, and that *palliata* was restricted to northern Colombia.

Meyer de Schauensee (1950) described the race *bolivari* from Quimari, Bolívar, Colombia. This type locality actually lies in the department of Córdoba, north of the Córdoba/Antioquia border (see Paynter & Traylor 1981), c. 300 km east of the type locality of *palliata*. Meyer de Schauensee characterized *bolivari* as duller, more olivaceous dorsally and on the flanks than *palliata*. However, we do not find this distinction to hold up when seven specimens, including the type, of *bolivari* are compared to a series of *palliata*.

A single male specimen taken at Del Cerro Ayapa, Zulia, Venezuela, c. 200 km northeast of the type locality of *bolivari*, was described by Aveledo & Gines (1949) as a new race, *Myrmeciza laemosticta venezuelae*. This specimen was purported to have a greyer head and less reddish on the back, crissum and upper tail-coverts than *palliata*. Aveledo & Gines were apparently unaware that four of the six specimens of supposed *palliata* that they compared to their type of *venezuelae* were actually of the very distinct nominate race of Central America. These four specimens (1 male, 3 females) were from Panama; as mentioned above, Wetmore (1972) correctly ascertained that all Panamanian *laemosticta* are referable to the nominate race. Had Aveledo & Gines had a series of true *palliata* from northern Colombia they likely would have realized that their type specimen of *venezuelae* was actually a typical example of *palliata*.

The type of *Myrmeciza laemosticta venezuelae* was originally deposited in the Colección Ornitológica Phelps in Caracas, but then transferred to the AMNH, where it remains uncatalogued with a large group of types from the Phelps Collection. Ridgely compared the type to a male *palliata* (AMNH 133504) and found them to be indistinguishable.

In addition, our colleague, John Guarnaccia, compared a pair of our *bolivari* (ANSP 160843, 160844; as mentioned above these are indistinguishable from a series of *palliata*) with 11 specimens of *venezuelae* (all collected since *venezuelae* was described) that are housed in the Colección Ornitológica Phelps. We quote Guarnaccia on his comparison of the ANSP '*bolivari*' specimens with the *venezuelae* material: "ANSP 160843, 160844 are essentially identical to the *venezuelae* series in the Phelps collection." Moreover, he noted that the series of *venezuelae* was quite different from two Panamanian specimens (49505, 49506) labelled as *palliata* in the Phelps collection. As Guarnaccia recognized, these two mis-labelled specimens represent typical examples of the nominate race. Thus, given the above confusion with what nominate and *palliata* races of *laemosticta* really looked like, it is not surprising that *venezuelae* was erroneously described.

One final comment, and one that further illustrates that *palliata* and *venezuelae* are indeed indistinguishable, should be made regarding the subspecific identification of Venezuelan *laemosticta* specimens. Peters (1951) listed a specimen from La Azulito (= La Azulita), Mérida, under *venezuelae*. However, he added a footnote to the effect that W. H. Phelps had determined that this specimen was actually referable to *palliata*. Interestingly, Phelps later reversed his opinion, as he included this specimen under *venezuelae* in the second edition of the Venezuelan Passeriform Checklist (1963). We find that this specimen (CM 90393), from the easternmost locality for any Venezuelan *laemosticta*, is indistinguishable from material from the westernmost locality (Río Sinú, Córdoba) of *palliata* (USMN 411505-6, 411597, 411593).

We conclude that neither *bolivari* nor *venezuelae* merit recognition. We recommend synonymizing both names under *palliata*. The ranges of recognized subspecies of *Myrmeciza laemosticta* may thus be summarized:

M. laemosticta laemosticta: Costa Rica and Panama (east to Darién).

M. laemosticta palliata: northern Colombia (Sinú Valley eastward) and western Venezuela (Zulia, Mérida).

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Appendix 1. Specimens examined

- Myrmeciza laemosticta laemosticta*. COSTA RICA: 4 males, 4 females (AMNH); 4 males, 2 females (CM); 1 male (ANSP). PANAMA: 6 males, 4 females (USNM); 2 males, 1 female (COP).
- Myrmeciza laemosticta palliata*. COLOMBIA: 1 male (AMNH); 5 males, 5 females (USNM); 1 male, 1 female (CM).
- Myrmeciza laemosticta "bolivari"*. COLOMBIA: 2 males, 2 females (USNM); 2 males, 1 female (ANSP).
- Myrmeciza laemosticta "venezuelae"*. VENEZUELA: 3 males, 8 females (COP); 1 male (AMNH).
- Myrmeciza nigricauda*. COLOMBIA: 2 males, 3 females (USNM); 5 males, 1 female (ANSP). ECUADOR: 2 males, 5 females (ANSP).
- Myrmeciza berlepschi*. COLOMBIA: 10 males, 3 females (ANSP). ECUADOR: 1 male (ANSP).